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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/693,019 | 10/20/2000 | Shinichi Baba | 1204-US | 7461 |

9941 7590 02/03/2004

TELCORDIA TECHNOLOGIES, INC.
ONE TELCORDIA DRIVE 5G116
PISCATAWAY, NJ 08854-4157

| EXAMINER |
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KADING, JOSHUA A

| ART UNIT | PAPER NUMBER |
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2661

DATE MAILED: 02/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/693,019

Applicant(s)

BABA ET AL.

Examiner

Joshua Kading

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-5, 9, 10, 14 and 15 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6-8, 11-13 and 16 is/are rejected.
- 7) ☒ Claim(s) 1-4, 7-9, and 12-14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

The drawings are objected to because there are no labels identifying figures 9 and 10. A proposed drawing correction or corrected drawings are required in reply to
5 the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 1-4, 7-9, and 12-14 are objected to because of the following informalities:

10 Claim 1, line 17; claim 7, line 22; and claim 12, line 12 state, "IP address being said". It should read --IP address being an--.

Claim 2, line 19; claim 8, line 12; and claim 13, line 10 state, "the SIP INFO method". It should read, --a SIP INFO method--.

Claim 3, line 6 states, "TCP connection". It should read, --TCP connections--.

15 Claim 4, line 3; claim 9, line 5; and claim 14, line 4 state "registration/hand-off...the SIP REGISTER". It should read, --registration or hand-off...a SIP REGISTER--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

20 The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 8, and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "short lived tunnel" in claim 2, line 17; claim 8, line 1; and claim 13, line 5 6; is a relative term which renders the claim indefinite. The term "short lived tunnel" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. How long is short lived? As is known in the art, networks have different speeds with which they communicate. Therefore, a "short lived 10 tunnel" is a relative term and needs further definition.

The term "brief time-out period" in claim 2, lines 23-24; claim 8, lines 7-8; and claim 13, lines 10-11; is a relative term which renders the claim indefinite. The term "brief time-out period" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would 15 not be reasonably apprised of the scope of the invention. How long is brief? As is known in the art, networks have different speeds with which they communicate. Therefore, a "brief time-out" is a relative term and needs further definition.

Claim Rejections - 35 USC § 101

20 Claim 6 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 6 states, "...augmenting a SIP INFO message with an instruction..." The SIP INFO message and the instruction are both

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non-statutory subject matter, i.e. they are data structures. Therefore neither the message, the instruction, nor the combination of the two is allowable subject matter.

Claim Rejections - 35 USC § 103

5 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

10 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

 Claims 1, 7, 11, 12, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liao ("Mobile Internet telephony protocol: an application layer protocol for mobile Internet telephony services", 1999 IEEE International Conference) in view of La Porta (U.S. Patent 6,434,134 B1).

 In regard to claims 1, 7, and 12, Liao discloses a method and a system "...for providing mobility support from a first SIP-compliant network environment to a second SIP-compliant network environment, comprising:

 assigning a personal identifier to a mobile user (page 341, col. 2, paragraph 3, lines 1-12 where the "user@home_host" is a personal identifier of the mobile user);
 associating said personal identifier to a mobile terminal (page 341, col. 2, paragraph 3, lines 1-12 where the "user@home_host" is a personal identifier of the mobile user)..."

However, Liao lacks "...associating a first temporary IP address from said first environment with said personal identifier; receiving packets of data at said mobile terminal from a corresponding host wherein each of said packets of data further comprises a source IP address and a destination IP address, said destination address being said first temporary IP address and said source IP address being said IP address associated with said corresponding host; monitoring said mobile terminal to sense movement of said mobile terminal from said first environment to said second environment; associating a second temporary IP address from said second environment with said personal identifier; forwarding to said second temporary IP address packets of data having said first temporary IP address as said destination address; sending said second temporary IP address to said source IP address; and discontinuing forwarding of packets of data having said first temporary IP address as said destination address to said second temporary IP address."

La Porta however, discloses "...associating a first temporary IP address from said first environment with said personal identifier (figure 3, element 170 where a "HA" is a "home address" as defined in col. 9, lines 57-59; the "address" refers to an IP address as is mentioned throughout the reference; and the "HA" is temporary as it is only assigned to the device while it is in the home domain, if it were to move out of the home domain a new address must be assigned);

receiving packets of data at said mobile terminal from a corresponding host wherein each of said packets of data further comprises a source IP address and a destination IP address, said destination address being said first temporary IP address

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and said source IP address being said IP address associated with said corresponding host (figure 7, elements 314 and 316 although element 318 is defined as a destination address, element 314 is also a destination address, it is the destination address of the mobile terminal; the refresh message is a packet of data);

5 monitoring said mobile terminal to sense movement of said mobile terminal from said first environment to said second environment (figure 3, element 184);

 associating a second temporary IP address from said second environment with said personal identifier (figure 3, elements 176 and 180 where the "COA" is a "care of address" or second temporary IP address assigned to the mobile and associated with
10 the personal identifier);

 forwarding to said second temporary IP address packets of data having said first temporary IP address as said destination address (figure 3, element 182);

 sending said second temporary IP address to said source IP address (figure 3, element 182 where the tunneling of packets, as in figure 14, to the mobile terminal
15 means that the secondary IP address must be known to the source IP address so the source IP address can forward the packets to the mobile terminal);

 and discontinuing forwarding of packets of data having said first temporary IP address as said destination address to said second temporary IP address (figure 3, elements 214 and 216)."

20 It should also be noted that both Liao and La Porta lack a "computer-readable medium having computer-executable instructions for performing" the method and "a processor" for also performing the method. However, it would have been obvious to one

with ordinary skill in the art at the time of invention to have the "computer-executable instructions" or "processor" perform the method because this is the most efficient and feasible way of executing the method.

It would have been obvious to one with ordinary skill in the art at the time of invention to include the first and second temporary IP addresses, the receiving of packets, the monitoring of the mobile terminal, and forwarding of packets with the mobile personal identifier for the purpose of allowing a person to identify the mobile terminal at all times. The motivation being to have a unique personal identifier for each mobile terminal to allow for distinctness between the other mobile terminals.

In regard to claims 11 and 16, Liao discloses "...a SIP compliant network (page 339, Abstract, col. 1, lines 1-11)..." However, Liao lacks "a computer-readable medium having computer-executable instructions for performing a method to be executed...having a plurality of nodes, said method to support IP address binding within said network, comprising augmenting a SIP INFO message with an instruction to bind a first IP address to a second IP address."

La Porta however, discloses a "...method to support IP address binding within said network, comprising augmenting a SIP INFO message with an instruction to bind a first IP address to a second IP address (col. 11, lines 2-9 where the root router has a first IP address and the care-of address is a second IP address and by tunneling they are thus linked or they are bound together; although the SIP INFO message has not been explicitly stated, the function of the augmented SIP INFO message is the same, it

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has signaled the IP address of the root router to bind itself to the second IP address, i.e. the care-of address, for packet tunneling)."

It is also noted that La Porta lacks a "computer-readable medium having computer-executable instructions for performing" the method and "a processor" for also performing the method. However, it would have been obvious to one with ordinary skill in the art at the time of invention to have the "computer-executable instructions" or "processor" perform the method because this is the most efficient and feasible way of executing the method.

It would also have been obvious to one with ordinary skill in the art at the time of invention to include the SIP environment with the augmented SIP INFO message for the purpose of allowing a person to identify the mobile terminal while it is roaming using a unique identifier. The motivation being that the unique identifier allows the mobile to remain in communication with others at all times.

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter: Claim 3 is allowable because the prior art of record, in combination with other limitations, fails to teach "...a record of said TCP connection[s], each record having associated therewith: (a) an original IP address of said mobile node, (b) a previous IP address of said mobile node, (c) a current IP address of said mobile node and (d) an original IP address of a corresponding host node..."

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Claims 4, 5, 9, 10, 14, and 15 are allowable because the prior art of record, in combination with other limitations, fails to teach "adding a registration [or] hand-off option to [a] SIP REGISTER method; and equipping a SIP registrar node with a DHCP client node and co locating said SIP registrar node with a DHCP server node to enable
5 said SIP registrar node to assign an IP address to said mobile node..."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (703) 305-0342. The examiner can normally be reached on M-F: 8:30AM-5PM.

10 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-
15 3900.



JK
January 26, 2004

Joshua Kading
Examiner
Art Unit 2661



KENNETH VANDERPUYE
PRIMARY EXAMINER

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